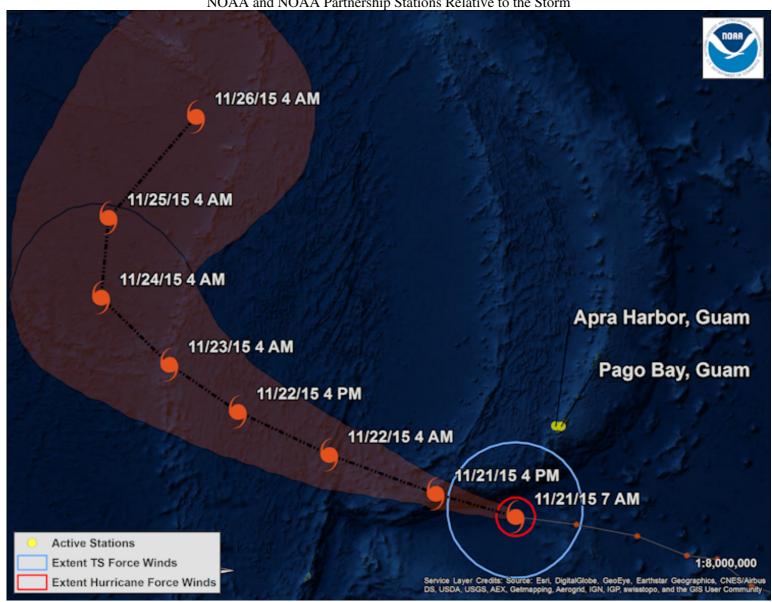


NOAA and NOAA Partnership Stations Relative to the Storm



Storm Analysis

As of 11/21/2015 08:30 ChST, water levels at Pago Bay are slightly elevated around 0.9 ft above predicted tide levels; Apra Harbor is currently measuring near predictied levels. Winds are around 5-15 knots with gusts up to 25 knots at Apra Harbor. Barometric pressure is slowly falling.

Water Level and Meteorological plots available below are updated automatically. A line denoting <u>Mean Higher High Water</u> (MHHW) is displayed to provide an approximate indication of when flooding inundation may occur.

For additional data, please see the <u>Center for Operational Oceanographic Products & Services</u> website. For more information or archived products and reports, please see the <u>Storm QuickLook</u> Homepage.

Analyst: KG

SELECT NATIONAL WEATHER SERVICE GUAM ADVISORY INFORMATION:

TYPHOON IN-FA (27W) ADVISORY NUMBER 16

800 AM CHST SAT NOV 21 2015

...TYPHOON IN-FA MAINTAINING INTENSITY SOUTH-SOUTHWEST OF GUAM...

CHANGES WITH THIS ADVISORY

NONE.

WATCHES AND WARNINGS

A TROPICAL STORM WARNING REMAINS IN EFFECT FOR GUAM. TROPICAL STORM CONDITIONS INCLUDING DAMAGING WINDS OF 39 TO 73 MPH ARE EXPECTED TO CONTINUE...MAINLY IN SOUTHERN GUAM WATERS...UNTIL LATER THIS MORNING.

SUMMARY OF 700 AM CHST...2100 UTC...INFORMATION

LOCATION...11.1N 143.7E

ABOUT 180 MILES SOUTH-SOUTHWEST OF GUAM ABOUT 230 MILES SOUTH-SOUTHWEST OF ROTA ABOUT 300 MILES SOUTH-SOUTHWEST OF TINIAN ABOUT 310 MILES SOUTH-SOUTHWEST OF SAIPAN

MAXIMUM SUSTAINED WINDS...115 MPH PRESENT MOVEMENT...WEST...275 DEGREES AT 18 MPH

DISCUSSION AND OUTLOOK

AT 700 AM CHST...2100 UTC...THE CENTER OF TYPHOON IN-FA WAS LOCATED BY RADAR NEAR LATITUDE 11.1 DEGREES NORTH AND LONGITUDE 143.7 DEGREES EAST...MOVING WEST AT 18 MPH. IN-FA IS EXPECTED TO RESUME A WEST-NORTHWEST HEADING LATER TODAY WITH A SLIGHT DECREASE IN FORWARD SPEED. IN-FA HAS MADE ITS CLOSEST POINT OF APPROACH TO GUAM AND IS HEADING INTO THE OPEN WATERS OF THE PHILIPPINE SEA.

MAXIMUM SUSTAINED WINDS REMAIN AT 115 MPH. TYPHOON FORCE WINDS EXTEND OUTWARD UP TO 40 MILES FROM THE CENTER. TROPICAL STORM FORCE WINDS EXTEND OUTWARD UP TO 130 MILES NORTH OF THE CENTER...AND UP TO 110 MILES SOUTH OF THE CENTER. IN-FA IS

EXPECTED TO INTENSIFY THROUGH SUNDAY.

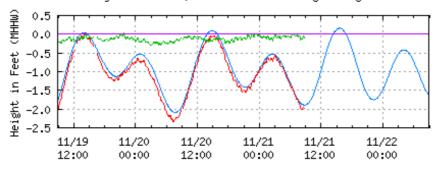
\$\$

WILLIAMS

For the purpose of timely release, data contained within this QuickLook have undergone a "limited" NOS Quality Assurance/Control; however, the data have not yet undergone final verification. All data subject to NOS verification.

Jump to: <u>Apra Harbor, Guam - Water Level, Apra Harbor, Guam - Winds, Apra Harbor, Guam - Barometric, Pago</u>
<u>Bay, Guam - Water Level, Pago Bay, Guam - Winds</u>

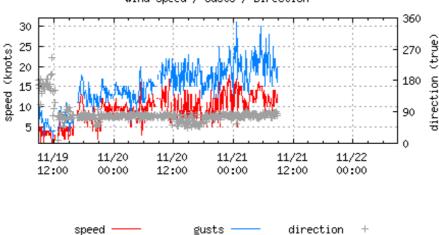
$NOAA/NOS/CO-OPS~ \underline{1630000~Apra~Harbor,~Guam}\\ Preliminary~ Water~ Level,~ relative~ to~ Mean~ Higher~ High~Water(MHHW)\\$



Predicted Tide — (Obs-Pred) — Observed WL — MHHW —

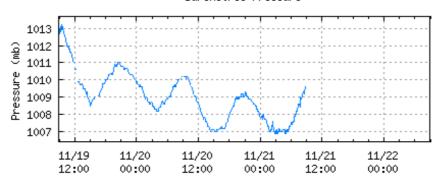
Last Observed Sample: 11/21/2015 08:48 (ChST). Data relative to MHHW Observed: -1.98 ft. Predicted: -1.90 ft. Residual: -0.08 ft. Historical Maximum Water Level: Aug 28 1992, 1.95 ft. Next High Tide: 11/21/2015 15:35 (ChST), 0.16 ft.

NOAA/NOS/CO-OPS 1630000 Apra Harbor, Guam Wind Speed / Gusts / Direction



Last Observed Sample: 11/21/2015 08:48 (ChST) Wind Speed: 13 knots Gusts: 20 knots Direction: 78° T

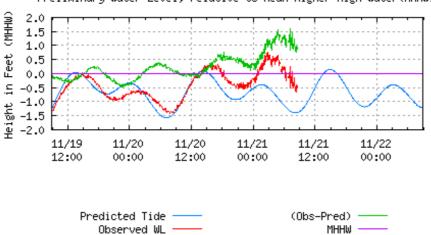
$\begin{array}{c} NOAA/NOS/CO\text{-}OPS ~ \underline{1630000 ~ Apra ~ Harbor, Guam} \\ \text{Barometric} ~ \text{Pressure} \end{array}$



barometric pressure —— Last Observed Sample: 11/21/2015 08:48 (ChST)

Barometric Pressure: 1009.6 mb

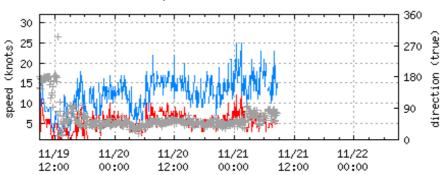
NOAA/NOS/CO-OPS <u>1631428 Pago Bay, Guam</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Last Observed Sample: 11/21/2015 08:30 (ChST). Data relative to MHHW

Observed: -0.44 ft. Predicted: -1.38 ft. Residual: 0.94 ft. Historical Maximum Water Level: Oct 20 2004, 2.40 ft. Next High Tide: 11/21/2015 14:55 (ChST), 0.14 ft.

$\begin{array}{c} NOAA/NOS/CO\text{-}OPS \\ \underline{1631428\ Pago\ Bay,\ Guam} \\ \text{Wind\ Speed\ /\ Gusts\ /\ Direction} \end{array}$



speed gusts direction +
Last Observed Sample: 11/21/2015 08:30 (ChST)

Latest Water Level Observations on MHHW

Station ID	Station Name	Date/Time	Observed Water Level	Predicted Tide	Residual Water Level	24 Hour Maximum Storm Tide
1630000	Apra Harbor, Guam	11/21/2015 08:48 (ChST)	-1.98 ft	-1.90 ft	-0.08 ft	-0.04 ft
1631428	Pago Bay, Guam	11/21/2015 08:30 (ChST)	-0.44 ft	-1.38 ft	0.94 ft	0.76 ft

Center for Operational Oceanographic Products & Services (CO-OPS) | National Ocean Service (NOS) National Oceanic and Atmospheric Administration | U.S. Department of Commerce